MIC 87-A-2

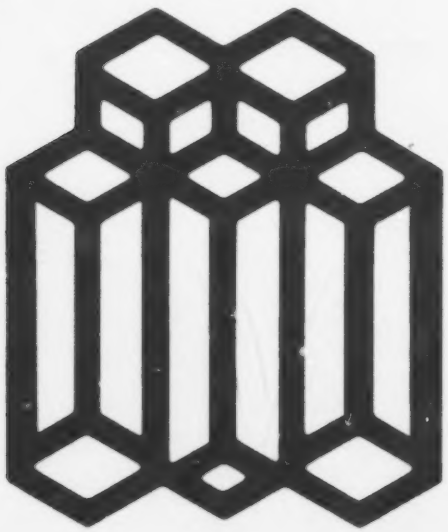
1987 Census of Mineral Industries

MIC87-A-2

GEOGRAPHIC AREA SERIES

Middle Atlantic States

New Jersey, New York, Pennsylvania



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The overall planning and review of the census operations were performed by the staff of the Office of the Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Industry Division. **John Govoni,** Assistant Chief for Census/ASM Programs, was responsible for the overall planning, management, and coordination of the census of mineral industries. Planning and implementation were under the direction of **John P. McNamee,** Chief, Minerals Branch, assisted by **Frank W. Roy,** Section Chief, and **Patricia L. Horning.**

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If you have any questions concerning the statistics in this report, call (301) 763-5938.

1987
Census of Mineral Industries

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Middle Atlantic States

New Jersey, New York, Pennsylvania

Issued November 1990

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INTRODUCTION

PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the

Census of Retail Trade
Census of Wholesale Trade
Census of Service Industries
Census of Transportation
Census of Manufactures
Census of Mineral Industries
Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial

activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Business Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures, Current Industrial Reports,* and the *Quarterly Financial Report.* Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1987 Economic Censuses and Related Statistics.* More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses.* Contact Customer Services for information on availability.

CENSUS OF MINERAL INDUSTRIES

General

This report, from the 1987 Census of Mineral Industries, is one of a series of nine geographic division reports, each of which provides statistics for individual States within a defined geographic area. Additional separate reports are issued for individual industries or groups of related industries and for special subjects, such as fuels and electric energy consumed.

The introduction to the *General Summary* discusses, at greater length, many of the subjects described in this introduction. For example, the *General Summary* text will discuss the economic significance of the mining sector, the relation of value added by mining to value added by manufacture, some of the changes in statistical concepts over the history of the census, and the valuation problems arising from intracompany transfers between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

Scope of Census and Definition of Mineral Industries

The 1987 Census of Mineral Industries covers all establishments with one paid employee or more primarily engaged in mining as defined in the *1987 Standard Industrial Classification (SIC) Manual*[1]. This is the system of industrial classification developed by experts on classification in Government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This classification system is used by Government agencies as well as many organizations outside the Government.

[1]**Standard Industrial Classification Manual: 1987.** For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

The SIC Manual defines mining in the broad sense to include the extraction of minerals occurring naturally: solids such as coal and ores, liquids such as crude petroleum, and gases such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparations needed to make minerals marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the exploration and development of mineral properties are classified separately but within this division.

Mining operations are classified by industry on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. The recovery of material from culm banks, ore dumps, and other waste mineral piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities is not included in this division but is classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) also are excluded.

Mining operations carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on such mining activities have been obtained in the 1987 Census of Manufactures and are included in the mining reports. They are clearly specified wherever included.

Establishment Basis of Reporting

The census of mineral industries covers each mining establishment of firms with one paid employee or more operating in the United States. A company operating more than one establishment is required to file a separate report for each location. A mineral establishment is defined as a single physical location where mineral operations are conducted.

For oil and gas field operations and for contract services, the basis for reporting is different from the "establishment" basis used for other types of mining. Firms operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each State or offshore area adjacent to a State in which it conducted such activities. Firms that performed contract services for oil and gas field operations and for mining establishments were required to submit one report covering all such activities in the United States and to include information on receipts for services and production-worker wages and hours, by State. These consolidated reports were then allocated to State establishments based on the data reported at the State level. The 1987 figures for establishments include the summation of operations for each State allocated from these nationwide reports.

Use of Administrative Records

From a mailout universe of about 34,000 mining establishments, approximately 12,000 small single-establishment companies were not mailed a questionnaire. For these establishments, some employment, payroll, and receipts data were obtained from the administrative records of other agencies. Selection of the small establishment non-mail cases was done on an industry-by-industry basis, and a variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. This information was then used in conjunction with industry averages and other information to estimate the statistics for administrative-record and nonresponse establishments. The first column in tables 2a and 5 provides an indication of the extent that these establishments account for the figures shown. The value of shipments and receipts and cost of supplies were generally not distributed among specific products and supplies for these establishments, but were included in the product and supply "not specified by kind" categories. Overall, establishments for which administrative-record data were used accounted for less than 2 percent of total value of shipments and receipts.

The industry classification codes included in the administrative-record files were used for those establishments excused from filing census forms. Generally, these codes were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description was incomplete, or where there were relatively fine lines of demarcation among industries or between mining and nonmining activities, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product or activity information. Therefore, the total establishment count should be viewed as an approximate measure. The counts for establishments with 20 employees or more are far more reliable.

In the 1987 census, as in the 1982, 1977, and 1972 censuses, data for single-unit firms without paid employees were excluded. This exclusion had only a slight effect on industry aggregates for most industries. Data for firms without employees were included in the 1958, and 1954 censuses if they reported more than $5[illegible] in (1) value of shipments and receipts, (2) cost of supplies and purchased machinery, or (3) capital expenditures.

Auxiliaries

Statistics for employment and payroll for individual industries and industry groups also include employment and payroll figures for administrative offices, warehouses,

storage facilities, and other auxiliary establishments servicing mining establishments. As in previous censuses, respondents were asked to file separate reports (form ES-9200) for any separately operated auxiliary establishments. Classification of employment and payroll data at such auxiliary establishments was based on the mining establishments served.

Industry Classification of Establishments

Each of the establishments covered in the census was classified in 1 of 31 mineral industries in accordance with the industry definitions in the 1987 SIC Manual. The 1987 edition of this manual represents a major revision for mineral industries from the 1972 edition and its 1977 supplement. Appendix A of the 1987 manual notes the revisions in the four-digit industry levels between 1972/77 and 1987.

An industry is generally defined as a group of establishments producing the same product or closely related group of products. The resulting group of establishments must be significant in terms of its number, value added by mining, value of shipments and receipts, number of employees, and payroll. Application of these criteria led to formulation of 31 mining industries for 1987, and each was assigned a four-digit code. This represents a reduction of four-digit industries from 42 in 1972/77. The classification system also provides broader groups of industries, with 20 three-digit groups and 4 two-digit groups. Within industries, the system provides for seven-digit products and five-digit product classes. Products are considered primary to an industry if the first four digits of the product codes are the same as the industry code. Products whose first four code numbers differ from the industry code are called secondary products. To determine the industry classification of an establishment, the seven-digit products are grouped together according to the first four digits of the product code. The first four digits of the group of products with the largest value of production become the industry code for the establishment. (For mineral service industries, the classification is on the basis of receipts for services performed.)

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Whenever possible, separate figures are shown for establishments with mines only, mines with preparation plants, and preparation plants only. Separate figures are provided by type of mine (underground, open pit, and combination). Separate statistics also are provided on producing and nonproducing operations, an establishment being defined as nonproducing if no mineral products were shipped during the year.

Statistics usually are provided on the production of minerals mined and used in the same establishment for producing prepared minerals or used at the producing establishment for fuel.

Differences in the integration of production processes and types of operation should be considered when relating the general items (employment, payrolls, value added, etc.) to the product and material data.

CENSUS DISCLOSURE RULES

In accordance with Federal law governing census reports, no data are published that would disclose the data for an individual establishment or company. However, the number of establishments classified in a specific industry is not considered a disclosure, so this information may be released even though other information is withheld.

The disclosure analysis for the State statistics in the tables of this report is based on the total value of shipments and receipts and capital expenditures. When the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line is suppressed. If capital expenditures alone is a disclosure, only total capital expenditures and cost of supplies statistics are suppressed. However, the suppressed data are included in higher-level totals.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Mineral Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications. Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, DC 20233.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, and bbl, are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "l tons."

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Mineral Industries–Five-year industry and product statistics	Minerals Branch Industry Division Bureau of the Census	(301) 763-5938
Mineral Industries–Annual product statistics (domestic and international) except fuels	Bureau of Mines Metals Nonmetallic minerals International	 (202) 634-1055 (202) 634-1202 (202) 632-8970
Mineral Industries– Coal and oil and gas production	National Energy Information Center (NEIC) staff Department of Energy	(202) 586-8800
To order any Census Bureau publication	Customer Services (DUSD) Bureau of the Census	(301) 763-4100
Import/Export publications	Foreign Trade Division	(301) 763-5140

Users' Guide for Locating Statistics in This Report by Table Number

[For explanation of terms, see appendix]

Item	State historical	State by industry	State by industry group and type of operation	State summary	State by county and industry group	State by county and establishment size
Establishments:						
Total number	1	2a, 2b	3	4	5	6
Employment size				4		6
Employment and payroll:						
Number of employees	1	2a	3	4	5	
Payroll	1	2a		4	5	
Production, development, and exploration—						
Workers	1	2a		4	5	
Hours	1	2a, 2b		4	5	
Wages	1	2a, 2b		4	5	
Supplemental labor costs				4		
Value added, cost of supplies, shipments, and inventories:						
Value added by mining	1	2a	3	4	5	
Cost of supplies	1	2a, 2b		4	5	
Resales, cost and value				4		
Purchased fuels consumed				4		
Purchased electricity				4		
Cost of contract work				4		
Value of shipments and receipts	1	2a		4	5	
Inventories				4		
New and used capital expenditures excluding land and rights:						
Total	1	2a		4	5	
Buildings and structures				4		
Machinery and equipment				4		
Mineral exploration and development				4		
Rental payments				4		
Expensed mineral exploration, development, land, and rights				4		

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New Jersey

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6.	Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987	9

-- Not applicable for this report.

SUMMARY OF FINDINGS

The total value of shipments and receipts for the 154 establishments classified in mineral industries in New Jersey was $326.2 million in 1987 compared to $181.3 million in 1982. Value added by mining amounted to $241.2 million in 1987, and payroll in mining amounted to $153.3 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in New Jersey was 4.2 thousand in 1987. This is an increase of 24 percent from 1982. The nonmetallic minerals, except fuels, industry led all other mineral industries in the State, accounting for approximately 76 percent of the State's mineral industries employment.

State Map

NEW JERSEY-Consolidated Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, Metropolitan Statistical Areas, Counties, and Selected Places

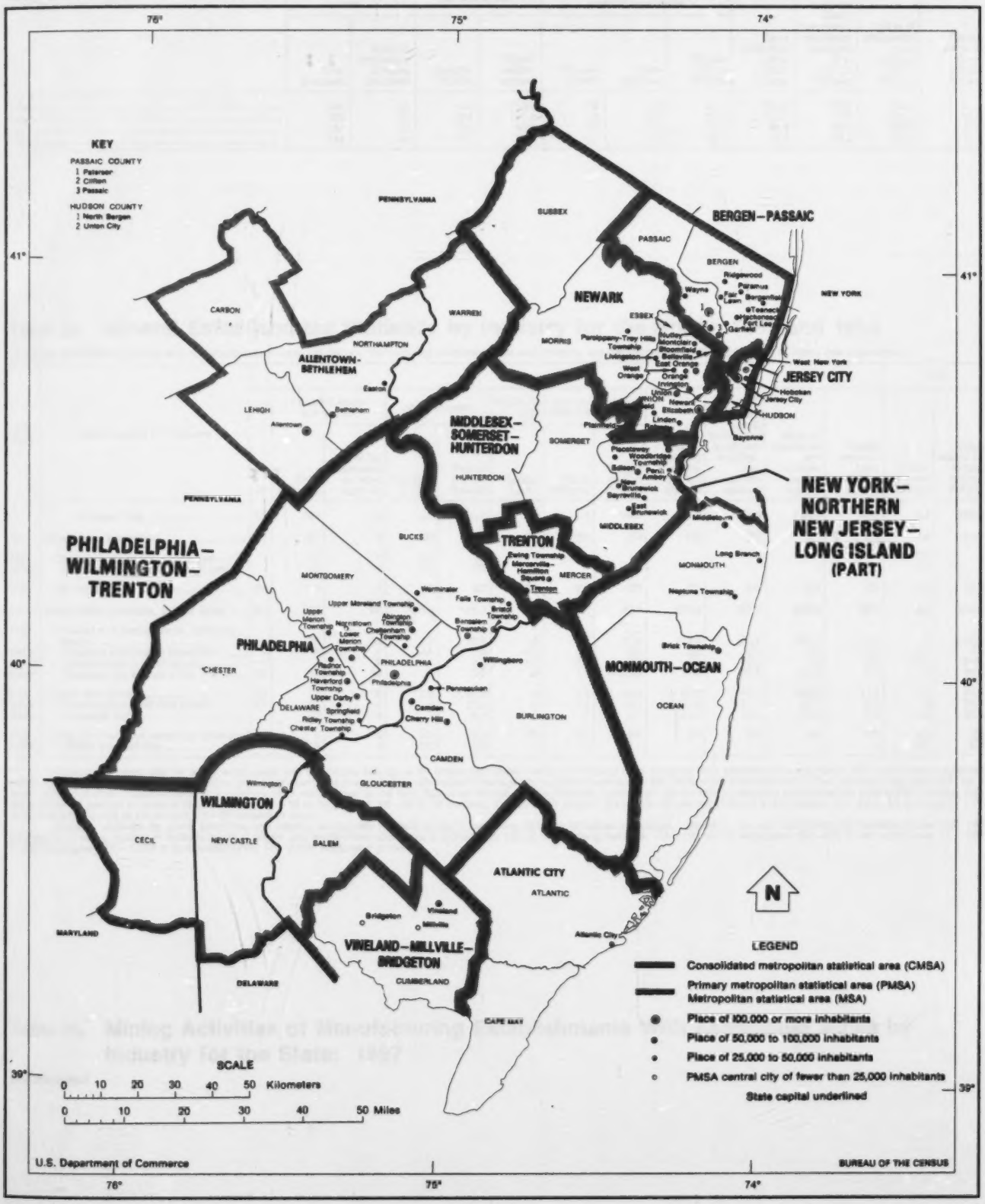

Table 1. Historical Statistics for the State: 1987 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
1987	154	44	4.2	153.3	1.9	4.0	46.7	241.2	116.2	326.2	31.2
1982	165	40	3.4	101.9	1.8	3.3	32.0	120.1	77.6	181.3	16.5
1977	157	36	3.0	48.6	1.7	3.5	22.1	93.3	49.9	130.4	12.7
1972	145	42	3.3	36.8	2.1	4.4	19.4	78.0	43.2	102.8	18.3

Table 2a. Mineral Establishment Statistics by Industry for the State: 1987 and 1982

[Industries and industry groups with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and industry	1987												1982	
			Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees[2] (1,000)	Value added by mining (million dollars)
		E[1]	Total (number)	With 20 employees or more (number)	Number[2] (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	All industries	**E2**	**154**	**44**	**4.2**	**153.3**	**1.9**	**4.0**	**46.7**	**241.2**	**116.2**	**326.2**	**31.2**	**3.4**	**120.1**
13	**Oil and gas extraction**	**E6**	**37**	**4**	**CC**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**1.0**	**10.7**
131	Crude petroleum and natural gas	-	13	1	CC	(D)	-	-	-	-	-	-	-	CC	-
1311	Crude petroleum and natural gas	-	13	1	CC	(D)	-	-	-	-	-	-	-	CC	-
138	Oil and gas field services	E6	24	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	10.7
14	**Nonmetallic minerals, except fuels**	**E1**	**111**	**39**	**3.2**	**105.3**	**1.7**	**3.5**	**41.6**	**220.8**	**107.0**	**298.0**	**28.9**	**2.2**	**102.2**
142	Crushed and broken stone, including riprap	E1	25	16	1.2	33.6	.8	1.7	21.0	122.6	58.3	162.7	16.1	.8	42.9
1422	Crushed and broken limestone	-	5	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1423	Crushed and broken granite	-	4	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	E2	16	10	.7	17.9	.6	1.1	13.2	57.0	35.8	86.8	8.0	.4	30.5
144	Sand and gravel	E2	72	18	1.0	27.3	.8	1.8	18.2	88.6	45.1	122.0	11.7	1.0	54.6
1442	Construction sand and gravel	E3	61	14	.8	21.2	.6	1.2	14.1	67.5	31.7	89.7	9.4	.8	33.8
1446	Industrial sand	-	11	4	.2	6.0	.2	.4	4.1	21.2	13.4	32.3	2.3	.4	20.8
145	Clay, ceramic, and refractory minerals	-	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
1455	Kaolin and ball clay	-	3	3	CC	(D)	-	-	-	-	-	-	-	CC	(D)

[1]Payroll and sales data for some small single unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

[2]General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1987

[Not Applicable]

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments
				Mines only				Mines with preparation plants					
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants	Undistributed[1]	
	ALL INDUSTRIES												
	Establishments ..... number	154	154	15	-	4	11	64	-	62	2	1	74	-
	Employees 1,000	4.2	4.2	(D)	-	(L)	(D)	1.9	-	(D)	(D)	(D)	(D)	-
	Value added in mining ..... mil dol	241.2	241.2	(D)	-	(D)	-	193.1	-	(D)	(D)	(D)	(D)	-
10	**METAL MINING**													
	Establishments ..... number	6	6	-	-	-	-	1	-	1	-	-	5	-
	Employees 1,000	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
103	LEAD AND ZINC ORES													
	Establishments ..... number	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees 1,000	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-
104	GOLD AND SILVER ORES													
	Establishments ..... number	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees 1,000	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-
108	METAL MINING SERVICES													
	Establishments ..... number	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	MISCELLANEOUS METAL ORES													
	Establishments ..... number	2	2	-	-	-	-	1	-	1	-	-	1	-
	Employees 1,000	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
13	**OIL AND GAS EXTRACTION**													
	Establishments ..... number	37	37	11	-	-	11	-	-	-	-	-	26	-
	Employees 1,000	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
131	CRUDE PETROLEUM AND NATURAL GAS													
	Establishments ..... number	13	13	11	-	-	11	-	-	-	-	-	2	-
	Employees 1,000	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-
138	OIL AND GAS FIELD SERVICES													
	Establishments ..... number	24	24	-	-	-	-	-	-	-	-	-	24	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	**NONMETALLIC MINERALS, EXCEPT FUELS**													
	Establishments ..... number	111	111	4	-	4	-	63	-	61	2	1	43	-
	Employees 1,000	3.2	3.2	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-
	Value added in mining ..... mil dol	220.8	220.8	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments
				Mines only				Mines with preparation plants					
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants	Undistributed[1]	
14	**NONMETALLIC MINERALS, EXCEPT FUELS** —Con.												
142	CRUSHED AND BROKEN STONE, INCLUDING RIPRAP												
	Establishments ..... number	25	25	-	-	-	-	24	-	24	-	-	1	-
	Employees 1,000	1.2	1.2	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining ..... mil dol	122.6	122.6	-	-	-	-	122.6	-	122.6	-	-	-	-
144	SAND AND GRAVEL												
	Establishments ..... number	72	72	2	-	2	-	35	-	33	2	1	34	-
	Employees 1,000	1.0	1.0	(D)	-	(D)	-	.7	-	(D)	(D)	(D)	(D)	-
	Value added in mining ..... mil dol	88.6	88.6	(D)	-	(D)	-	64.3	-	(D)	(D)	(D)	(D)	-
145	CLAY, CERAMIC, AND REFRACTORY MINERALS												
	Establishments ..... number	5	5	2	-	2	-	-	-	-	-	-	3	-
	Employees 1,000	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
148	NONMETALLIC MINERALS SERVICES, EXCEPT FUELS												
	Establishments ..... number	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees 1,000	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining ..... mil dol	3.6	3.6	-	-	-	-	-	-	-	-	-	3.6	-
149	MISCELLANEOUS NONMETALLIC MINERALS, EXCEPT FUELS												
	Establishments ..... number	4	4	-	-	-	-	4	-	4	-	-	-	-
	Employees 1,000	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

[1]Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4. Summary Statistics for the State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	Item	1987
Establishments during year ---- number	154	Cost of supplies ---- mil dol	116.2
With 0 to 19 employees ---- do	110	Supplies used, minerals received, and purchased machinery installed ---- do	77.5
With 20 to 99 employees ---- do	37	Resales ---- do	6.8
With 100 employees or more ---- do	7	Purchased fuels consumed ---- do	12.4
All employees:		Purchased electric energy:	
Average for year ---- 1,000	4.2	Quantity ---- mil kWh	171.4
Payroll for year ---- mil dol	153.3	Cost ---- mil dol	12.6
Production, development, and exploration workers:		Electric energy generated less sold ---- mil kWh	(D)
Average for year ---- 1,000	1.9	Contract work ---- mil dol	6.9
March ---- do	1.8	Cost of purchased communication services ---- do	.5
May ---- do	1.8	Value of shipments and receipts ---- do	326.2
August ---- do	2.0	Value of resales ---- do	6.6
November ---- do	1.9	Capital expenditures during year (except land and mineral rights) ---- do	31.2
Hours ---- millions	4.0	New capital expenditures during year ---- do	24.7
January to March ---- do	.9	Buildings and other structures, except land ---- do	2.7
April to June ---- do	1.0	Machinery and equipment ---- do	22.0
July to September ---- do	1.0	Used capital expenditures during year ---- do	4.8
October to December ---- do	1.0	Buildings and other structures, except land ---- do	.1
Wages ---- mil dol	46.7	Machinery and equipment ---- do	4.7
Supplemental labor costs not included in payroll ---- do	15.0	Mineral exploration and development[1] ---- do	1.6
Legally required expenditures, including Social Security contributions ---- do	7.8	Rental payments during year ---- do	4.7
Payments for voluntary programs ---- do	7.2	Buildings and other structures, except land ---- do	.3
Value added by mining ---- do	241.2	Machinery and equipment ---- do	4.4
Inventories, beginning of 1987 ---- do	36.4	Expensed mineral exploration, development, land, and rights[1,2] ---- do	(D)
Inventories, end of 1987 ---- do	37.1		

[1]Excludes data for mining services industries and natural gas liquids industries where data were not collected.
[2]Excludes data for mineral land and rights for the crude petroleum and natural gas industries where data were not collected.

Table 5. Industry Group Statistics for Counties: 1987

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Geographic area and industry group	E[1]	Establishments during year: Total (number)	Establishments during year: With 20 employees or more (number)	All employees: Number[2] (1,000)	All employees: Payroll (million dollars)	Production, development, and exploration workers: Number (1,000)	Production, development, and exploration workers: Hours (millions)	Production, development, and exploration workers: Wages (million dollars)	Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	New Jersey	E2	154	44	4.2	153.3	1.9	4.0	46.7	241.2	116.2	326.2	31.2
	Cumberland County	E1	11	5	.3	6.5	.2	.5	4.9	22.3	13.5	33.3	2.5
14	**Nonmetallic minerals, except fuels**	E1	11	5	.3	6.5	.2	.5	4.9	22.3	13.5	33.3	2.5
144	Sand and gravel	E1	11	5	.3	6.5	.2	.5	4.9	22.3	13.5	33.3	2.5
	Middlesex County	E1	12	5	.8	37.9	.1	.2	2.7	19.1	7.1	23.4	2.9
14	**Nonmetallic minerals, except fuels**	E1	12	5	.8	37.9	.1	.2	2.7	19.1	7.1	23.4	2.9
144	Sand and gravel	E2	9	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay, ceramic, and refractory minerals	-	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Morris County	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	**Nonmetallic minerals, except fuels**	-	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone, including riprap	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ocean County	E3	16	4	.2	3.7	.1	.2	2.8	8.5	4.5	12.4	.8
14	**Nonmetallic minerals, except fuels**	E4	9	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Somerset County	E1	8	6	.8	15.5	.4	.9	10.2	58.1	25.9	78.3	6.7
14	**Nonmetallic minerals, except fuels**	E1	7	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone, including riprap	E1	7	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Sussex County	E2	17	6	.4	12.2	.3	.6	7.1	30.1	16.7	44.1	2.7
14	**Nonmetallic minerals, except fuels**	E2	16	6	BB	(D)	.3	.6	7.1	30.1	16.7	44.1	2.7
142	Crushed and broken stone, including riprap	-	7	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	E5	8	2	.2	4.1	.1	.3	3.5	11.9	4.2	14.9	1.2
	Union County	-	1	1	AA	(D)	-	-	-	-	-	-	-
14	**Nonmetallic minerals, except fuels**	-	1	1	AA	(D)	-	-	-	-	-	-	-
145	Clay, ceramic, and refractory minerals	-	1	1	AA	(D)	-	-	-	-	-	-	-

[1]Payroll and sales data for some small single unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.
[2]Some statistics for counties or industry groups are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups with 100 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987

[Data for the crude prtroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Geographic area and employment-size class[1]	All mineral industries	Metal mining (SIC 10)	Coal mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)
New Jersey	154	6	-	37	111
0 to 4 employees	62	1	-	26	35
5 to 9 employees	25	4	-	5	16
10 to 19 employees	23	-	-	2	21
20 to 49 employees	26	1	-	2	23
50 to 99 employees	11	-	-	1	10
100 to 249 employees	5	-	-	-	5
500 to 999 employees	2	-	-	1	1
Atlantic	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
Bergen	5	-	-	-	5
0 to 19 employees	4	-	-	-	4
20 to 99 employees	1	-	-	-	1
Burlington	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
Camden	6	-	-	-	6
0 to 19 employees	6	-	-	-	6
Cape May	4	-	-	-	4
0 to 19 employees	2	-	-	-	2
20 to 99 employees	2	-	-	-	2
Cumberland	11	-	-	-	11
0 to 19 employees	6	-	-	-	6
20 to 99 employees	5	-	-	-	5
Gloucester	4	-	-	-	4
0 to 19 employees	3	-	-	-	3
20 to 99 employees	1	-	-	-	1
Hunterdon	3	-	-	-	3
0 to 19 employees	2	-	-	-	2
20 to 99 employees	1	-	-	-	1
Mercer	2	1	-	-	1
0 to 19 employees	2	1	-	-	1
New Jersey—Con.					
Middlesex	12	-	-	-	12
0 to 19 employees	7	-	-	-	7
20 to 99 employees	3	-	-	-	3
100 to 249 employees	1	-	-	-	1
250 employees or more	1	-	-	-	1
Monmouth	6	-	-	-	6
0 to 19 employees	6	-	-	-	6
Morris	3	-	-	-	3
6 to 19 employees	1	-	-	-	1
20 to 99 employees	1	-	-	-	1
100 to 249 employees	1	-	-	-	1
Ocean	10	1	-	-	9
0 to 19 employees	6	-	-	-	6
20 to 99 employees	4	1	-	-	3
Passaic	6	-	-	-	6
0 to 19 employees	3	-	-	-	3
20 to 99 employees	3	-	-	-	3
Salem	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Somerset	8	1	-	-	7
0 to 19 employees	2	1	-	-	1
20 to 99 employees	4	-	-	-	4
100 to 249 employees	2	-	-	-	2
Sussex	17	1	-	-	16
0 to 19 employees	11	1	-	-	10
20 to 99 employees	6	-	-	-	6
Union	1	-	-	-	1
100 to 249 employees	1	-	-	-	1
Warren	5	-	-	-	5
0 to 19 employees	3	-	-	-	3
20 to 99 employees	2	-	-	-	2
Undistributed	44	2	-	37	5
0 to 19 employees	39	2	-	33	4
20 to 99 employees	4	-	-	3	1
250 employees or more	1	-	-	1	-

[1]Data for crude petroleum and natural gas and mining services industries are excluded from the individual counties and shown at the end of the table as "undistributed."

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New York

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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 466 establishments classified in mineral industries in New York was $641.7 million in 1987 compared to $576.8 million in 1982. Value added by mining amounted to $484.3 million in 1987, and payroll in mining amounted to $342.1 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in New York was 8.8 thousand in 1987, or 1 percent of the Nation's total. This is an increase of 13 percent from 1982. The nonmetallic minerals, except fuels, industry led all other mineral industries in the State, accounting for approximately 67 percent of the State's mineral industries value of shipments and receipts.

NEW YORK - Consolidated Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, Metropolitan Statistical Areas, Counties, and Selected Places

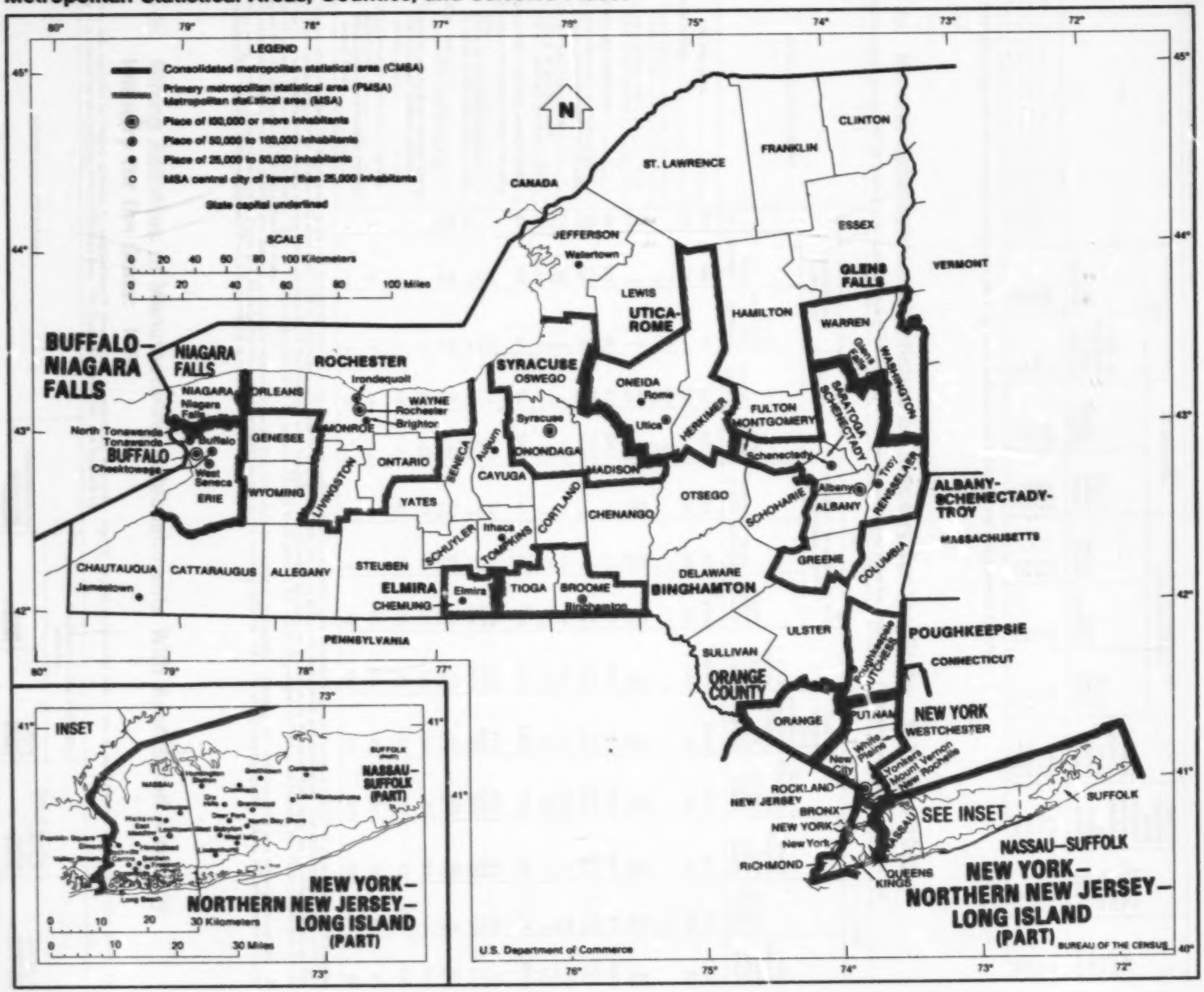

Table 1. Historical Statistics for the State: 1987 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
1987	486	77	8.8	342.1	3.9	8.7	98.8	484.3	219.9	641.7	62.5
1982	[1]537	(NA)	7.8	204.5	4.3	9.0	88.3	414.7	281.3	576.8	99.2
1977	467	83	7.1	133.5	4.2	8.6	61.3	217.8	113.4	298.1	33.1
1972	461	74	7.7	94.1	4.7	10.1	47.0	154.3	84.0	193.1	25.2

[1]Restated to reflect the 1987 definition of establishments in the crude petroleum and natural gas and mining services industries.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1987 and 1982

[Industries and industry groups with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and industry	1987											1982	
			Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees[2] (1,000)	Value added by mining (million dollars)
		E[1]	Total (number)	With 20 employees or more (number)	Number[2] (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	All industries	**E2**	**486**	**77**	**8.8**	**342.1**	**3.9**	**8.7**	**98.8**	**484.3**	**219.9**	**641.7**	**62.5**	**7.8**	**414.7**
10	**Metal mining**	**E1**	**16**	**7**	**CC**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**EE**	**(D)**
102	Copper ores	-	2	1	BB	(D)	-	-	-	-	-	-	-	.8	-
1021	Copper ores	-	2	1	BB	(D)	-	-	-	-	-	-	-	.8	-
103	Lead and zinc ores	E1	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
1031	Lead and zinc ores	E1	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
13	**Oil and gas extraction**	**E6**	**197**	**22**	**4.2**	**204.1**	**.7**	**1.8**	**15.7**	**153.5**	**55.2**	**185.9**	**22.7**	**2.4**	**198.2**
131	Crude petroleum and natural gas	E6	107	16	3.6	189.6	.3	.7	6.8	128.0	42.0	149.4	20.7	1.0	106.3
1311	Crude petroleum and natural gas	E6	107	16	3.6	189.6	.3	.7	6.8	128.0	42.0	149.4	20.7	1.0	106.3
138	Oil and gas field services	E4	90	6	.6	14.5	.4	1.0	8.8	25.4	13.1	36.5	2.1	EE	(D)
1381	Drilling oil and gas wells	E4	29	2	.2	4.5	.2	.4	3.5	9.0	5.1	13.4	.8	.6	30.3
1389	Oil and gas field services, n.e.c.	E3	41	4	.4	8.3	.2	.5	4.1	13.5	6.5	19.0	1.0	.6	49.5
14	**Nonmetallic minerals, except fuels**	**E1**	**247**	**48**	**3.9**	**105.8**	**3.1**	**6.8**	**78.3**	**315.5**	**152.5**	**429.2**	**38.8**	**3.4**	**192.5**
142	Crushed and broken stone, including riprap	-	71	25	1.8	45.4	1.3	3.1	35.8	136.2	75.0	188.5	22.6	EE	(D)
1422	Crushed and broken limestone	-	51	18	1.0	31.1	.9	2.0	24.4	97.3	52.4	131.0	18.8	1.0	53.9
1429	Crushed and broken stone, n.e.c.	E2	17	6	.5	12.9	.4	1.0	10.5	36.2	(D)	53.7	(D)	.3	17.8
144	Sand and gravel	E2	148	15	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	43.1
1442	Construction sand and gravel	E2	144	15	1.3	32.7	1.0	2.0	23.0	89.3	51.6	130.6	10.2	.9	42.1
147	Chemical and fertilizer mineral mining	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	54.1
1479	Chemical and fertilizer mineral mining, n.e.c.	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals, except fuels	-	13	5	.5	11.5	.4	.7	8.2	36.9	(D)	46.6	(D)	BB	(D)
1499	Miscellaneous nonmetallic minerals, except fuels	-	13	5	.5	11.5	.4	.7	8.2	36.9	(D)	46.6	(D)	BB	(D)

[1]Payroll and sales data for some small single unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

[2]General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1987

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures	8	.3	3.7	8.7	(X)
Crushed and broken stone, including riprap	3	(D)	(D)	(D)	(D)
Crushed and broken limestone	3	(D)	(D)	(D)	(D)
Gypsum	1	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments
				Mines only				Mines with preparation plants					
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants	Undistributed[1]	
	ALL INDUSTRIES												
	Establishments ..... number	486	457	101	3	10	88	132	3	127	2	3	221	9
	Employees 1,000	8.8	8.8	.7	(D)	(D)	.5	3.1	(D)	2.5	(D)	(D)	(D)	(Z)
	Value added in mining ..... mil dol	484.3	484.3	139.4	(D)	(D)	127.9	271.1	(D)	197.2	(D)	(D)	(D)	(Z)
10	**METAL MINING**													
	Establishments ..... number	16	16	3	3	-	-	2	1	1	-	-	11	-
	Employees 1,000	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
101	**IRON ORES**													
	Establishments ..... number	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees 1,000	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
102	**COPPER ORES**													
	Establishments ..... number	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-
103	**LEAD AND ZINC ORES**													
	Establishments ..... number	5	5	3	3	-	-	1	1	-	-	-	1	-
	Employees 1,000	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
104	**GOLD AND SILVER ORES**													
	Establishments ..... number	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-
108	**METAL MINING SERVICES**													
	Establishments ..... number	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	**COAL MINING**													
	Establishments ..... number	6	6	1	-	1	-	-	-	-	-	-	5	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
122	**BITUMINOUS COAL AND LIGNITE MINING**													
	Establishments ..... number	4	4	1	-	1	-	-	-	-	-	-	3	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
124	**COAL MINING SERVICES**													
	Establishments ..... number	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
13	**OIL AND GAS EXTRACTION**													
	Establishments ..... number	197	192	88	-	-	88	-	-	-	-	-	104	5
	Employees 1,000	4.2	4.2	.5	-	-	.5	-	-	-	-	-	3.7	(Z)
	Value added in mining ..... mil dol	153.5	153.3	127.9	-	-	127.9	-	-	-	-	-	25.4	.2

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments[2]
				Mines only				Mines with preparation plants					
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants	Undistributed[1]	
13	**OIL AND GAS EXTRACTION**—Con.												
131	CRUDE PETROLEUM AND NATURAL GAS												
	Establishments ..... number	107	102	88	-	-	88	-	-	-	-	-	14	5
	Employees 1,000	3.6	3.6	.5	-	-	.5	-	-	-	-	-	3.0	(Z)
	Value added in mining ..... mil dol	128.0	127.9	127.9	-	-	127.9	-	-	-	-	-	-	.2
138	OIL AND GAS FIELD SERVICES												
	Establishments ..... number	90	90	-	-	-	-	-	-	-	-	-	90	-
	Employees 1,000	.6	.6	-	-	-	-	-	-	-	-	-	.6	-
	Value added in mining ..... mil dol	25.4	25.4	-	-	-	-	-	-	-	-	-	25.4	-
14	**NONMETALLIC MINERALS, EXCEPT FUELS**												
	Establishments ..... number	247	243	9	-	9	-	130	2	126	2	3	101	4
	Employees 1,000	3.9	3.9	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(Z)
	Value added in mining ..... mil dol	315.5	315.7	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	-.2
141	DIMENSION STONE												
	Establishments ..... number	4	4	3	-	3	-	1	-	1	-	-	-	-
	Employees 1,000	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	CRUSHED AND BROKEN STONE, INCLUDING RIPRAP												
	Establishments ..... number	71	69	-	-	-	-	64	-	64	-	1	4	2
	Employees 1,000	1.6	(D)	-	-	-	-	(D)	-	(D)	-	(D)	(D)	(D)
	Value added in mining ..... mil dol	136.2	(D)	-	-	-	-	(D)	-	(D)	-	(D)	-	(D)
144	SAND AND GRAVEL												
	Establishments ..... number	148	147	4	-	4	-	51	-	50	1	2	90	1
	Employees 1,000	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)
145	CLAY, CERAMIC, AND REFRACTORY MINERALS												
	Establishments ..... number	3	2	1	-	1	-	-	-	-	-	-	1	1
	Employees 1,000	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
147	CHEMICAL AND FERTILIZER MINERAL MINING												
	Establishments ..... number	3	3	-	-	-	-	2	2	-	-	-	1	-
	Employees 1,000	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
148	NONMETALLIC MINERALS SERVICES, EXCEPT FUELS												
	Establishments ..... number	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments											Nonproducing establishments
				Mines only				Mines with preparation plants						
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants	Undistributed[1]	
14	NONMETALLIC MINERALS, EXCEPT FUELS —Con.													
149	MISCELLANEOUS NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments number	13	13	1	-	1	-	12	-	11	1	-	-	-
	Employees 1,000	.5	.5	(D)	-	(D)	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining mil dol	36.9	36.9	(D)	-	(D)	-	(D)	-	(D)	(D)	-	-	-

[1]Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4. Summary Statistics for the State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	Item	1987
Establishments during year number	466	Cost of supplies mil dol	219.9
With 0 to 19 employees do	389	Supplies used, minerals received, and purchased machinery installed do	141.3
With 20 to 99 employees do	65	Resales do	.9
With 100 employees or more do	12	Purchased fuels consumed do	18.9
All employees:		Purchased electric energy:	
Average for year 1,000	8.8	Quantity mil kWh	402.2
Payroll for year mil dol	342.1	Cost mil dol	23.4
Production, development, and exploration workers:		Electric energy generated less sold mil kWh	(D)
Average for year 1,000	3.9	Contract work mil dol	35.4
March do	3.5	Cost of purchased communication services do	.7
May do	4.0		
August do	4.1	Value of shipments and receipts do	641.7
November do	4.0	Value of resales do	1.2
Hours millions	8.7		
January to March do	1.8	Capital expenditures during year (except land and mineral rights) do	62.5
April to June do	2.2	New capital expenditures during year do	40.4
July to September do	2.4	Buildings and other structures, except land do	3.8
October to December do	2.2	Machinery and equipment do	36.6
Wages mil dol	98.8	Used capital expenditures during year do	7.0
		Buildings and other structures, except land do	.2
Supplemental labor costs not included in payroll do	31.3	Machinery and equipment do	6.9
Legally required expenditures, including Social Security contributions do	14.4	Mineral exploration and development[1] do	15.1
Payments for voluntary programs do	16.9	Rental payments during year do	8.0
Value added by mining do	484.3	Buildings and other structures, except land do	1.1
		Machinery and equipment do	7.0
Inventories, beginning of 1987 do	78.7		
Inventories, end of 1987 do	86.5	Expensed mineral exploration, development, land, and rights[1,2] do	9.2

[1]Excludes data for mining services industries and natural gas liquids industries where data were not collected.
[2]Excludes data for mineral land and rights for the crude petroleum and natural gas industries where data were not collected.

Table 5. Industry Group Statistics for Counties: 1987

Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Geographic area and industry group	E[1]	Establishments during year: Total (number)	Establishments during year: With 20 employees or more (number)	All employees: Number[2] (1,000)	All employees: Payroll (million dollars)	Production, development, and exploration workers: Number (1,000)	Production, development, and exploration workers: Hours (millions)	Production, development, and exploration workers: Wages (million dollars)	Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	New York	E2	486	77	8.8	342.1	3.9	8.7	96.8	484.3	219.9	841.7	62.5
	Albany County	E5	5	3	.2	4.0	.2	.4	3.2	8.2	(D)	14.4	(D)
4	**Nonmetallic minerals, except fuels**	E5	5	3	.2	4.0	.2	.4	3.2	8.2	(D)	14.4	(D)
42	Crushed and broken stone, including riprap	E5	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Dutchess County	-	15	3	.3	8.8	.2	.5	6.8	35.1	11.4	42.8	3.8
4	**Nonmetallic minerals, except fuels**	-	15	3	.3	8.8	.2	.5	6.8	35.1	11.4	42.8	3.8
42	Crushed and broken stone, including riprap	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
44	Sand and gravel	E1	12	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Essex County	-	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
4	**Nonmetallic minerals, except fuels**	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
49	Miscellaneous nonmetallic minerals, except fuels	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jefferson County	E1	12	3	.1	3.2	.1	.2	2.5	12.4	5.8	18.1	2.9
4	**Nonmetallic minerals, except fuels**	E1	12	3	.1	3.2	.1	.2	2.5	12.4	5.8	18.1	2.9
	Livingston County	-	4	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
4	**Nonmetallic minerals, except fuels**	-	4	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
47	Chemical and fertilizer mineral mining	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Monroe County	E3	18	3	.2	4.8	.1	.2	2.8	11.7	4.2	18.1	.8
4	**Nonmetallic minerals, except fuels**	E3	15	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
42	Crushed and broken stone, including riprap	E2	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	New York County	E9	8	2	BB	(D)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
0	**Metal mining**	-	4	2	BB	(D)	-	-	-	-	-	-	-
02	Copper ores	-	2	1	BB	(D)	-	-	-	-	-	-	-
	Oneida County	-	11	2	.1	3.2	.1	.2	2.1	8.5	4.2	18.0	.8
4	**Nonmetallic minerals, except fuels**	-	11	2	.1	3.2	.1	.2	2.1	8.5	4.2	18.0	.8
	Onondaga County	E2	7	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
4	**Nonmetallic minerals, except fuels**	E2	7	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
42	Crushed and broken stone, including riprap	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Orange County	E3	7	1	.1	2.9	.1	.2	2.2	3.0	1.7	4.4	.3
4	**Nonmetallic minerals, except fuels**	E3	7	1	.1	2.9	.1	.2	2.2	3.0	1.7	4.4	.3
44	Sand and gravel	E3	6	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Rockland County	-	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
4	**Nonmetallic minerals, except fuels**	-	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
42	Crushed and broken stone, including riprap	-	4	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Lawrence County	-	11	5	.4	11.2	.3	.8	8.2	33.5	14.9	48.3	2.1
0	**Metal mining**	E1	4	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
03	Lead and zinc ores	E1	4	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
4	**Nonmetallic minerals, except fuels**	-	7	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
49	Miscellaneous nonmetallic minerals, except fuels	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Suffolk County	E1	19	3	.2	5.1	.2	.3	3.9	18.8	18.0	31.8	3.0
4	**Nonmetallic minerals, except fuels**	E1	19	3	.2	5.1	.2	.3	3.9	18.8	18.0	31.8	3.0
44	Sand and gravel	E2	14	2	.1	3.4	.1	.2	2.6	9.8	12.9	21.7	1.0
	Tompkins County	-	4	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
8	**Nonmetallic minerals, except fuels**	-	4	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
47	Chemical and fertilizer mineral mining	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ulster County	-	9	2	.1	3.3	.1	.3	2.3	10.5	4.3	14.5	.4
1	**Nonmetallic minerals, except fuels**	-	9	2	.1	3.3	.1	.3	2.3	10.5	4.3	14.5	.4
	Warren County	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1	**Nonmetallic minerals, except fuels**	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
9	Miscellaneous nonmetallic minerals, except fuels	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Washington County	E4	8	2	.1	1.8	.1	.2	1.5	6.0	2.4	8.0	.5
	Nonmetallic minerals, except fuels	E4	8	2	.1	1.8	.1	.2	1.5	6.0	2.4	8.0	.5

[1]Payroll and sales data for some small single unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies her than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a all number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data ount for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 79 percent; E8—80 to 89 percent; E9—90 percent or more.

[2]Some statistics for counties or industry groups are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups with 100 employees or more, mber of establishments is shown and employment-size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; —1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Geographic area and employment-size class[1]	All mineral industries	Metal mining (SIC 10)	Coal mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)
New York	498	18	6	197	247
0 to 4 employees	214	6	4	123	81
5 to 9 employees	89	-	2	31	56
10 to 19 employees	66	3	-	21	62
20 to 49 employees	51	4	-	13	34
50 to 99 employees	14	2	-	4	8
100 to 249 employees	6	-	-	1	5
250 to 499 employees	3	1	-	1	1
500 to 999 employees	2	-	-	2	-
1,000 to 2,499 employees	1	-	-	1	-
Albany	5	-	-	-	5
0 to 19 employees	2	-	-	-	2
20 to 99 employees	3	-	-	-	3
Allegany	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Bronx	1	-	-	-	1
20 to 99 employees	1	-	-	-	1
Broome	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Cattaraugus	7	-	-	-	7
0 to 19 employees	7	-	-	-	7
Cayuga	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Chautauqua	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Chemung	3	-	-	-	3
0 to 19 employees	2	-	-	-	2
20 to 99 employees	1	-	-	-	1
Columbia	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
Cortland	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Delaware	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Dutchess	15	-	-	-	15
0 to 19 employees	12	-	-	-	12
20 to 99 employees	2	-	-	-	2
100 to 249 employees	1	-	-	-	1
Erie	4	-	-	-	4
0 to 19 employees	3	-	-	-	3
20 to 99 employees	1	-	-	-	1
Essex	3	1	-	-	2
20 to 99 employees	2	1	-	-	1
100 to 249 employees	1	-	-	-	1
Franklin	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Fulton	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Genesee	4	-	-	-	4
0 to 19 employees	3	-	-	-	3
20 to 99 employees	1	-	-	-	1
Greene	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Hamilton	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Herkimer	7	-	-	-	7
0 to 19 employees	6	-	-	-	6
20 to 99 employees	1	-	-	-	1
Jefferson	12	-	-	-	12
0 to 19 employees	9	-	-	-	9
20 to 99 employees	3	-	-	-	3
New York—Con.					
Lewis	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Livingston	4	-	-	-	4
0 to 19 employees	3	-	-	-	3
250 employees or more	1	-	-	-	1
Madison	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Monroe	16	-	1	-	15
0 to 19 employees	13	-	1	-	12
20 to 99 employees	3	-	-	-	3
Montgomery	3	-	-	-	3
0 to 19 employees	2	-	-	-	2
20 to 99 employees	1	-	-	-	1
Nassau	3	-	1	-	2
0 to 19 employees	3	-	1	-	2
New York	9	4	2	-	2
0 to 19 employees	6	2	2	-	2
20 to 99 employees	1	1	-	-	-
250 employees or more	1	1	-	-	-
Niagara	4	-	-	-	4
0 to 19 employees	3	-	-	-	3
20 to 99 employees	1	-	-	-	1
Oneida	11	-	-	-	11
0 to 19 employees	9	-	-	-	9
20 to 99 employees	2	-	-	-	2
Onondaga	7	-	-	-	7
0 to 19 employees	6	-	-	-	6
20 to 99 employees	1	-	-	-	1
Ontario	7	-	-	-	7
0 to 19 employees	7	-	-	-	7
Orange	7	-	-	-	7
0 to 19 employees	6	-	-	-	6
20 to 99 employees	1	-	-	-	1
Orleans	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
Oswego	4	-	-	-	4
0 to 19 employees	2	-	-	-	2
20 to 99 employees	2	-	-	-	2
Otsego	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Putnam	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
Rensselaer	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
Rockland	5	-	-	-	5
0 to 19 employees	2	-	-	-	2
20 to 99 employees	3	-	-	-	3
St. Lawrence	11	4	-	-	7
0 to 19 employees	6	1	-	-	5
20 to 99 employees	4	3	-	-	1
100 to 249 employees	1	-	-	-	1
Saratoga	6	-	-	-	6
0 to 19 employees	6	-	-	-	6
Schenectady	3	-	-	-	3
0 to 19 employees	1	-	-	-	1
20 to 99 employees	2	-	-	-	2
Schoharie	2	-	-	-	2
0 to 19 employees	1	-	-	-	1
20 to 99 employees	1	-	-	-	1
Seneca	1	-	-	-	1
0 to 19 employees	1	-	-	-	1

See footnotes at end of table.

Table 6. Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987—Con.

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Geographic area and employment-size class[1]	All mineral industries	Metal mining (SIC 10)	Coal mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)
New York—Con.					
Steuben	4	-	-	-	4
0 to 19 employees	3	-	-	-	3
20 to 99 employees	1	-	-	-	1
Suffolk	19	-	-	-	19
0 to 19 employees	16	-	-	-	16
20 to 99 employees	3	-	-	-	3
Sullivan	9	-	-	-	9
0 to 19 employees	8	-	-	-	8
20 to 99 employees	1	-	-	-	1
Tompkins	4	-	-	-	4
0 to 19 employees	2	-	-	-	2
20 to 99 employees	1	-	-	-	1
100 to 249 employees	1	-	-	-	1
Ulster	9	-	-	-	9
0 to 19 employees	7	-	-	-	7
20 to 99 employees	2	-	-	-	2
New York—Con.					
Warren	3	-	-	-	3
0 to 19 employees	2	-	-	-	2
100 to 249 employees	1	-	-	-	1
Washington	8	-	-	-	8
0 to 19 employees	6	-	-	-	6
20 to 99 employees	2	-	-	-	2
Wayne	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
Westchester	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Wyoming	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Undistributed	211	7	2	197	5
0 to 19 employees	188	6	2	175	5
20 to 99 employees	18	1	-	17	-
100 to 249 employees	1	-	-	1	-
250 employees or more	4	-	-	4	-

[1]Data for crude petroleum and natural gas and mining services industries are excluded from the individual counties and shown at the end of the table as "undistributed."

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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 1,382 establishments classified in mineral industries in Pennsylvania was $4.1 billion in 1987, or 3 percent of the Nation's total. This compares to $4.6 billion in 1982, when it was 2 percent of the Nation's total. Value added by mining amounted to $2.6 billion in 1987, and payroll in mining amounted to $977.6 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Pennsylvania was 33.4 thousand in 1987, or 5 percent of the Nation's total. This is a decrease of 30 percent from 1982. The coal mining industry led all other mineral industries in the State, accounting for approximately 67 percent of the State's mineral industries employment.

PENNSYLVANIA - Consolidated Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, Metropolitan Statistical Areas, Counties, and Selected Places

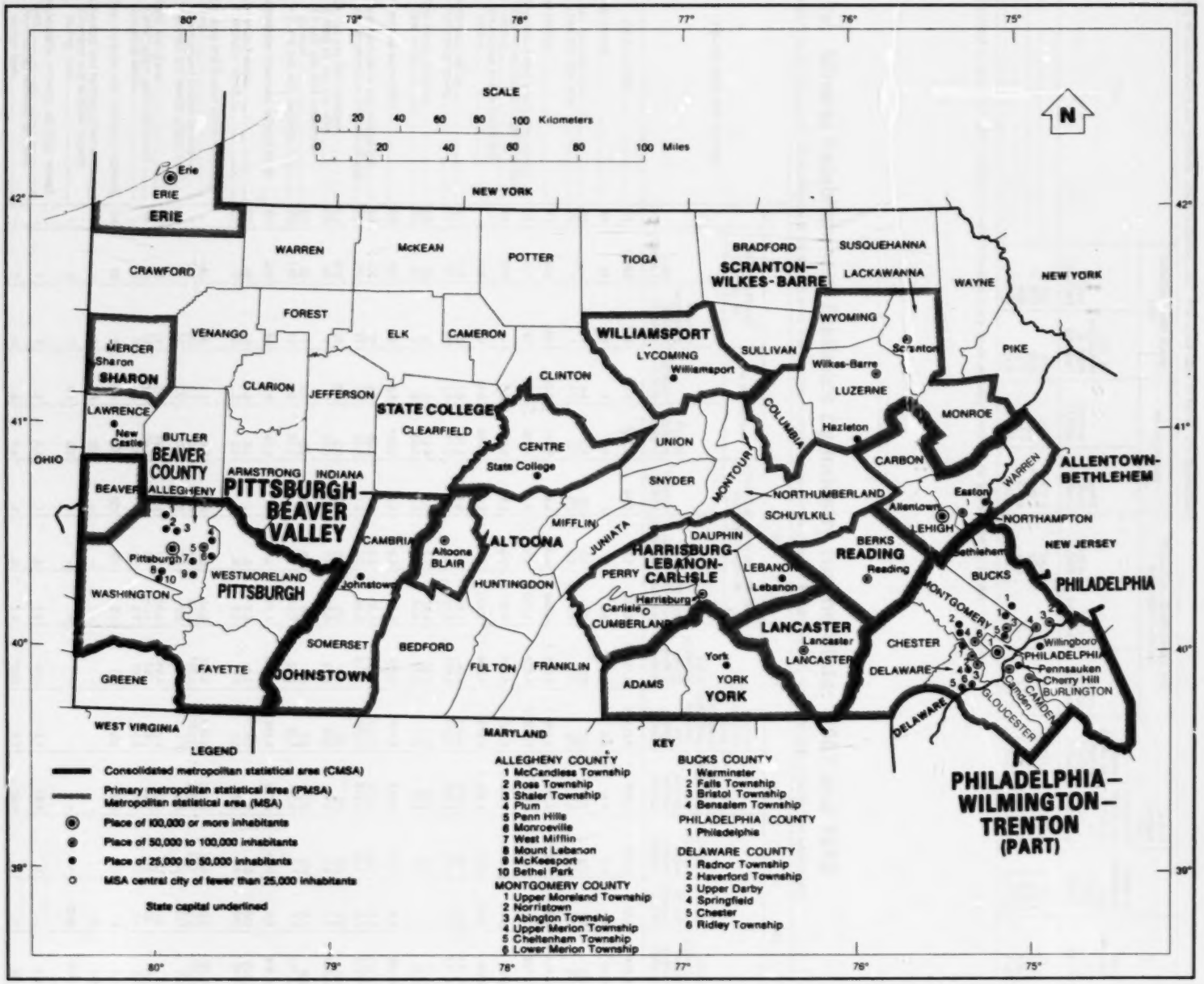

Table 1. Historical Statistics for the State: 1987 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
1987	1 382	314	33.4	977.6	24.7	50.7	705.2	2 561.6	1 821.6	4 102.0	281.2
1982	[1] 1 610	(NA)	48.0	1 180.2	37.1	70.8	866.2	2 936.8	2 179.0	4 575.6	540.2
1977	1 696	417	51.7	851.9	42.1	80.7	658.1	2 166.1	1 895.6	3 625.4	436.5
1972	1 543	338	41.9	441.6	33.6	58.4	337.2	847.2	610.0	1 311.2	146.0

[1]Restated to reflect the 1987 definition of establishments in the crude petroleum and natural gas and mining services industries.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1987 and 1982

[Industries and industry groups with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and industry	1987											1982	
			Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees[2] (1,000)	Value added by mining (million dollars)
		E[1]	Total (number)	With 20 employees or more (number)	Number[2] (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	All industries	**E1**	**1 382**	**314**	**33.4**	**977.6**	**24.7**	**50.7**	**705.2**	**2 561.6**	**1 821.6**	**4 102.0**	**281.2**	**48.0**	**2 936.8**
10	**Metal mining**	**E7**	**14**	**1**	**.2**	**5.3**	**.1**	**.2**	**3.5**	**8.0**	**8.9**	**14.9**	**2.0**	**.4**	**10.3**
103	Lead and zinc ores	E9	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
1031	Lead and zinc ores	E9	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
12	**Coal mining**	**E1**	**846**	**180**	**22.6**	**715.0**	**18.2**	**36.3**	**556.5**	**1 776.5**	**1 459.0**	**3 069.3**	**198.1**	**35.8**	**2 134.0**
122	Bituminous coal and lignite mining	E1	481	142	19.7	654.9	15.9	32.2	511.7	1 628.4	1 332.1	2 808.5	151.9	31.7	1 927.1
1221	Bituminous coal and lignite surface mining	E1	372	84	7.9	219.0	6.2	12.9	157.5	635.3	997.2	1 556.1	78.4	(NA)	(NA)
1222	Bituminous coal underground mining	-	109	58	11.8	435.9	9.7	19.3	354.2	993.1	334.9	1 252.4	75.5	(NA)	(NA)
123	Anthracite mining	E1	107	26	1.9	41.2	1.8	2.9	32.4	109.4	109.0	206.3	12.1	3.4	171.7
1231	Anthracite mining	E1	107	26	1.9	41.2	1.8	2.9	32.4	109.4	109.0	206.3	12.1	3.4	171.7
124	Coal mining services	E3	58	12	.8	18.8	.6	1.2	14.4	38.6	17.9	54.5	2.0	.7	35.3
1241	Coal mining services	E3	58	12	.8	18.8	.6	1.2	14.4	38.6	17.9	54.5	2.0	.7	35.3
13	**Oil and gas extraction**	**E3**	**420**	**49**	**4.8**	**115.4**	**3.0**	**6.7**	**86.2**	**422.8**	**187.3**	**536.9**	**71.2**	**7.2**	**592.0**
131	Crude petroleum and natural gas	E2	199	27	2.3	65.3	1.2	2.6	26.3	313.3	122.0	372.6	62.7	3.5	347.7
1311	Crude petroleum and natural gas	E2	199	27	2.3	65.3	1.2	2.6	26.3	313.3	122.0	372.6	62.7	3.5	347.7
138	Oil and gas field services	E4	219	22	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	FF	(D)
1381	Drilling oil and gas wells	E3	62	7	.8	18.0	.7	1.7	15.6	37.6	23.0	57.6	2.9	1.7	108.0
1382	Oil and gas field exploration services	E7	22	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1389	Oil and gas field services, n.e.c.	E3	115	14	1.2	27.0	.9	2.1	19.2	64.1	33.2	92.2	5.1	1.8	127.1
14	**Nonmetallic minerals, except fuels**	**E1**	**302**	**84**	**6.2**	**142.0**	**3.4**	**7.5**	**77.1**	**354.4**	**186.4**	**478.9**	**42.0**	**4.8**	**200.4**
141	Dimension stone	E1	16	3	.2	2.9	.1	.2	2.3	9.0	4.2	12.6	.6	(NA)	(NA)
1411	Dimension stone	E1	16	3	.2	2.9	.1	.2	2.3	9.0	4.2	12.6	.6	(NA)	(NA)
142	Crushed and broken stone, including riprap	-	150	59	3.4	87.0	2.3	5.2	54.6	257.3	123.7	347.5	33.5	2.9	131.0
1422	Crushed and broken limestone	-	113	46	2.7	70.9	1.8	4.0	42.3	195.4	102.5	270.2	27.7	2.3	105.3
1429	Crushed and broken stone, n.e.c.	-	35	12	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
144	Sand and gravel	E4	99	14	2.0	34.4	.8	1.6	16.8	69.4	29.4	92.4	6.3	1.0	57.5
1442	Construction sand and gravel	E4	93	12	1.8	30.6	.7	1.4	14.1	59.1	25.1	78.7	5.6	CC	(D)
1446	Industrial sand	-	6	2	.2	3.8	.1	.2	2.7	10.2	4.3	13.7	.8	AA	(D)
145	Clay, ceramic, and refractory minerals	E4	10	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.9
147	Chemical and fertilizer mineral mining	-	3	2	AA	(D)	-	-	-	-	-	-	-	AA	(D)
1479	Chemical and fertilizer mineral mining, n.e.c.	-	2	2	AA	(D)	-	-	-	-	-	-	-	(NA)	(NA)
148	Nonmetallic minerals services, except fuels	-	7	4	.2	4.4	.1	.2	1.8	10.8	3.7	13.8	.7	.1	3.9
1481	Nonmetallic minerals services, except fuels	-	7	4	.2	4.4	.1	.2	1.8	10.8	3.7	13.8	.7	.1	3.9

[1]Payroll and sales data for some small single unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

[2]General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1987

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures	24	(D)	(D)	(D)	(X)
Dimension stone	1	(D)	(D)	(D)	(D)
Crushed and broken stone, including riprap	14	.6	7.8	18.0	10 731.9
Crushed and broken limestone	14	.6	7.8	18.0	10 731.9
Clay and related minerals	9	.1	.8	1.7	952.4
Clay and related minerals, n.e.c.	8	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
	ALL INDUSTRIES													
	Establishments ..... number	1 382	1 359	841	124	327	190	272	29	222	21	25	421	23
	Employees 1,000	33.4	33.3	10.9	4.8	3.8	2.3	13.8	6.7	6.0	1.1	.8	7.7	.1
	Value added in mining ..... mil dol	2 561.6	2 565.6	1 041.6	389.2	316.0	336.3	1 262.5	649.6	538.1	74.9	72.9	188.6	-4.0
10	**METAL MINING**													
	Establishments ..... number	14	14	4	-	4	-	-	-	-	-	2	8	-
	Employees 1,000	.2	.2	(D)	-	(D)	-	-	-	-	-	(D)	(Z)	-
	Value added in mining ..... mil dol	8.0	8.0	(D)	-	(D)	-	-	-	-	-	(D)	.5	-
101	IRON ORES													
	Establishments ..... number	5	5	4	-	4	-	-	-	-	-	1	-	-
	Employees 1,000	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	-	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	-	-
103	LEAD AND ZINC ORES													
	Establishments ..... number	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
106	FERROALLOY ORES, EXCEPT VANADIUM													
	Establishments ..... number	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees 1,000	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-
108	METAL MINING SERVICES													
	Establishments ..... number	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees 1,000	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining ..... mil dol	.5	.5	-	-	-	-	-	-	-	-	-	.5	-
109	MISCELLANEOUS METAL ORES													
	Establishments ..... number	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees 1,000	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments
				Mines only				Mines with preparation plants					
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants	Undistributed[1]	
12	**COAL MINING**												
	Establishments ..... number	646	634	426	124	296	6	91	25	50	16	21	96	12
	Employees 1,000	22.5	22.4	8.6	4.9	(D)	(D)	10.4	(D)	2.8	(D)	.7	2.7	.1
	Value added in mining ..... mil dol	1 778.5	1 780.1	719.2	389.2	(D)	(D)	965.1	(D)	259.8	(D)	69.2	38.8	-3.6
122	**BITUMINOUS COAL AND LIGNITE MINING**												
	Establishments ..... number	481	472	351	80	267	4	76	23	44	9	11	34	9
	Employees 1,000	19.7	(D)	8.0	4.4	(D)	(D)	9.4	(D)	2.2	(D)	(D)	(D)	(D)
	Value added in mining ..... mil dol	1 628.4	(D)	670.8	368.5	(D)	(D)	907.7	(D)	228.0	(D)	(D)	-	(D)
123	**ANTHRACITE MINING**												
	Establishments ..... number	107	104	75	64	9	2	15	2	6	7	10	4	3
	Employees 1,000	1.9	(D)	.7	.4	(D)	(D)	1.0	(D)	.6	(D)	(D)	(D)	(D)
	Value added in mining ..... mil dol	109.4	(D)	42.3	20.7	(D)	(D)	57.4	(D)	31.8	(D)	(D)	-	(D)
124	**COAL MINING SERVICES**												
	Establishments ..... number	58	58	-	-	-	-	-	-	-	-	-	58	-
	Employees 1,000	.8	.8	-	-	-	-	-	-	-	-	-	.8	-
	Value added in mining ..... mil dol	38.8	38.8	-	-	-	-	-	-	-	-	-	38.8	-
13	**OIL AND GAS EXTRACTION**												
	Establishments ..... number	420	414	183	-	-	183	-	-	-	-	1	230	6
	Employees 1,000	4.6	4.6	2.0	-	-	2.0	-	-	-	-	(D)	(D)	(Z)
	Value added in mining ..... mil dol	422.8	422.9	313.4	-	-	313.4	-	-	-	-	(D)	(D)	(Z)
131	**CRUDE PETROLEUM AND NATURAL GAS**												
	Establishments ..... number	199	193	183	-	-	183	-	-	-	-	-	10	6
	Employees 1,000	2.3	2.3	2.0	-	-	2.0	-	-	-	-	-	.3	(Z)
	Value added in mining ..... mil dol	313.3	313.4	313.4	-	-	313.4	-	-	-	-	-	-	(Z)
132	**NATURAL GAS LIQUIDS**												
	Establishments ..... number	2	2	-	-	-	-	-	-	-	-	1	1	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	(D)	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	**OIL AND GAS FIELD SERVICES**												
	Establishments ..... number	219	219	-	-	-	-	-	-	-	-	-	219	
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	-	-	-	-		(D)	-
14	**NONMETALLIC MINERALS, EXCEPT FUELS**												
	Establishments ..... number	302	297	28	-	27	1	181	4	172	5	1	87	5
	Employees 1,000	6.2	6.1	(D)	-	.2	(D)	3.4	(D)	3.2	(D)	(D)	(D)	(Z)
	Value added in mining ..... mil dol	354.4	354.9	(D)	-	14.9	(D)	297.5	(D)	278.3	(D)	(D)	(D)	-.4
11	**DIMENSION STONE**												
	Establishments ..... number	18	18	18	-	18	-	-	-	-	-	-	-	-
	Employees 1,000	.2	.2	.2	-	.2	-	-	-	-	-	-	-	-
	Value added in mining ..... mil dol	9.0	9.0	9.0	-	9.0	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments
				Mines only				Mines with preparation plants					
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants	Undistributed[1]	
14	**NONMETALLIC MINERALS, EXCEPT FUELS**—Con.												
142	CRUSHED AND BROKEN STONE, INCLUDING RIPRAP												
	Establishments ..... number	150	147	3	-	2	1	131	4	127	-	1	12	3
	Employees 1,000	3.4	(D)	(D)	-	(D)	(D)	2.9	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining ..... mil dol	257.3	(D)	(D)	-	(D)	(D)	252.3	(D)	(D)	-	(D)	-	(D)
144	SAND AND GRAVEL													
	Establishments ..... number	99	97	2	-	2	-	33	-	30	3	-	62	2
	Employees 1,000	2.0	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-	(D)	(D)
	Value added in mining ..... mil dol	69.4	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-	(D)	(D)
145	CLAY, CERAMIC, AND REFRACTORY MINERALS													
	Establishments ..... number	10	10	7	-	7	-	1	-	1	-	-	2	-
	Employees 1,000	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	CHEMICAL AND FERTILIZER MINERAL MINING													
	Establishments ..... number	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil dol	-	-	-	-	-	-	-	-	-	-	-	-	-
148	NONMETALLIC MINERALS SERVICES, EXCEPT FUELS													
	Establishments ..... number	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees 1,000	.2	.2	-	-	-	-	-	-	-	-	-	.2	-
	Value added in mining ..... mil dol	10.6	10.6	-	-	-	-	-	-	-	-	-	10.6	-
149	MISCELLANEOUS NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments ..... number	17	17	-	-	-	-	15	-	14	2	-	1	-
	Employees 1,000	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	(D)	-
	Value added in mining ..... mil dol	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-

[1]Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4. Summary Statistics for the State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item		1987
Establishments during year	number	1 382
With 0 to 19 employees	do.	1 088
With 20 to 99 employees	do.	244
With 100 employees or more	do.	70
All employees:		
Average for year	1,000	33.4
Payroll for year	mil dol.	977.6
Production, development, and exploration workers:		
Average for year	1,000	24.7
March	do.	24.7
May	do.	24.7
August	do.	24.5
November	do.	24.4
Hours	millions	50.7
January to March	do.	12.6
April to June	do.	13.0
July to September	do.	12.5
October to December	do.	12.6
Wages	mil dol.	705.2
Supplemental labor costs not included in payroll	do.	380.4
Legally required expenditures, including Social Security contributions	do.	173.2
Payments for voluntary programs	do.	187.1
Value added by mining	do.	2 561.6
Inventories, beginning of 1987	do.	263.4
Inventories, end of 1987	do.	275.9
Cost of supplies	mil dol.	1 821.6
Supplies used, minerals received, and purchased machinery installed	do.	1 407.3
Resales	do.	40.6
Purchased fuels consumed	do.	92.4
Purchased electric energy:		
Quantity	mil kWh	1 883.6
Cost	mil dol.	94.7
Electric energy generated less sold	mil kWh	2.1
Contract work	mil dol.	186.6
Cost of purchased communication services	do.	3.6
Value of shipments and receipts	do.	4 102.0
Value of resales	do.	42.3
Capital expenditures during year (except land and mineral rights)	do.	281.2
New capital expenditures during year	do.	173.3
Buildings and other structures, except land	do.	13.6
Machinery and equipment	do.	159.8
Used capital expenditures during year	do.	45.5
Buildings and other structures, except land	do.	1.8
Machinery and equipment	do.	43.7
Mineral exploration and development[1]	do.	62.4
Rental payments during year	do.	59.1
Buildings and other structures, except land	do.	18.5
Machinery and equipment	do.	40.6
Expensed mineral exploration, development, land, and rights[1,2]	do.	54.7

[1]Excludes data for mining services industries and natural gas liquids industries where data were not collected.
[2]Excludes data for mineral land and rights for the crude petroleum and natural gas industries where data were not collected.

Table 5. Industry Group Statistics for Counties: 1987

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Geographic area and industry group	E[1]	Establishments during year: Total (number)	Establishments during year: With 20 employees or more (number)	All employees: Number[2] (1,000)	All employees: Payroll (million dollars)	Production, development, and exploration workers: Number (1,000)	Production, development, and exploration workers: Hours (millions)	Production, development, and exploration workers: Wages (million dollars)	Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Pennsylvania	**E1**	**1 382**	**314**	**33.4**	**977.6**	**24.7**	**50.7**	**705.2**	**2 561.6**	**1 821.6**	**4 102.0**	**281.2**
	Allegheny County	**E5**	**42**	**10**	**2.5**	**69.8**	**.8**	**1.1**	**17.1**	**45.5**	**26.8**	**68.2**	**3.8**
12	**Coal mining**	**E6**	**27**	**6**	**1.4**	**55.1**	**.5**	**.9**	**15.4**	**40.0**	**23.6**	**60.3**	**3.3**
122	Bituminous coal and lignite mining	E6	27	6	1.4	55.1	.5	.9	15.4	40.0	23.6	60.3	3.3
14	**Nonmetallic minerals, except fuels**	**E2**	**13**	**4**	**EE**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**
144	Sand and gravel	E1	9	3	1.0	12.7	(Z)	.1	.9	2.4	1.0	3.1	.3
	Armstrong County	**-**	**48**	**12**	**1.5**	**45.7**	**1.3**	**2.6**	**39.7**	**113.0**	**207.4**	**310.5**	**9.9**
12	**Coal mining**	**-**	**34**	**11**	**1.3**	**42.9**	**1.2**	**2.4**	**38.5**	**104.3**	**200.4**	**298.0**	**6.7**
122	Bituminous coal and lignite mining	-	34	11	1.3	42.9	1.2	2.4	38.5	104.3	200.4	298.0	6.7
14	**Nonmetallic minerals, except fuels**	**E3**	**13**	**1**	**AA**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**
	Bedford County	**-**	**2**	**2**	**AA**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**
14	**Nonmetallic minerals, except fuels**	**-**	**2**	**2**	**AA**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**
142	Crushed and broken stone, including riprap	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Berks County	**E2**	**13**	**5**	**.2**	**5.1**	**.2**	**.4**	**3.8**	**17.8**	**9.2**	**24.4**	**2.6**
14	**Nonmetallic minerals, except fuels**	**E2**	**13**	**5**	**.2**	**5.1**	**.2**	**.4**	**3.8**	**17.8**	**9.2**	**24.4**	**2.6**
142	Crushed and broken stone, including riprap	E2	12	5	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Blair County	**-**	**5**	**2**	**AA**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**
14	**Nonmetallic minerals, except fuels**	**-**	**5**	**2**	**AA**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**
142	Crushed and broken stone, including riprap	-	5	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Bucks County	**-**	**19**	**6**	**.4**	**10.7**	**.2**	**.5**	**5.6**	**35.6**	**17.9**	**48.3**	**5.1**
14	**Nonmetallic minerals, except fuels**	**-**	**18**	**6**	**BB**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**	**(D)**
142	Crushed and broken stone, including riprap	-	10	3	.2	7.2	.1	.3	3.4	25.0	12.6	33.9	4.0
144	Sand and gravel	E2	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Butler County	**E1**	**20**	**8**	**.8**	**17.4**	**.5**	**1.2**	**15.9**	**39.6**	**31.2**	**85.9**	**4.8**
12	**Coal mining**	**E1**	**12**	**4**	**.4**	**14.2**	**.4**	**.9**	**13.1**	**28.1**	**25.8**	**50.3**	**3.6**
122	Bituminous coal and lignite mining	E1	12	4	.4	14.2	.4	.9	13.1	28.1	25.8	50.3	3.6
14	**Nonmetallic minerals, except fuels**	**E2**	**8**	**4**	**.2**	**3.3**	**.1**	**.3**	**2.8**	**11.5**	**5.4**	**15.7**	**1.2**
142	Crushed and broken stone, including riprap	-	6	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cambria County	**-**	**24**	**9**	**2.3**	**80.1**	**2.1**	**4.4**	**73.5**	**174.2**	**159.0**	**318.1**	**15.1**
12	**Coal mining**	**-**	**24**	**9**	**2.3**	**80.1**	**2.1**	**4.4**	**73.8**	**174.2**	**159.0**	**318.1**	**15.1**
122	Bituminous coal and lignite mining	-	24	9	2.3	80.1	2.1	4.4	73.5	174.2	159.0	318.1	15.1

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1987—Con.

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Geographic area and industry group	E[1]	Establishments during year: Total (number)	Establishments during year: With 20 employees or more (number)	All employees: Number[2] (1,000)	All employees: Payroll (million dollars)	Production, development, and exploration workers: Number (1,000)	Production, development, and exploration workers: Hours (millions)	Production, development, and exploration workers: Wages (million dollars)	Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Pennsylvania—Con.												
	Carbon County	E6	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	**Metal mining**	E9	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	E9	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Centre County	E1	21	8	.7	22.0	.7	1.5	19.9	74.9	42.0	102.3	14.5
12	**Coal mining**	E1	16	8	.7	21.1	.6	1.4	19.3	72.0	40.5	98.3	14.3
122	Bituminous coal and lignite mining	E1	16	8	.7	21.1	.6	1.4	19.3	72.0	40.5	98.3	14.3
	Chester County	-	9	4	.2	5.3	.1	.3	3.5	19.9	6.7	25.1	1.4
14	**Nonmetallic minerals, except fuels**	-	4	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Clarion County	E4	15	4	.5	14.0	.3	.7	9.5	49.3	29.4	74.1	4.6
12	**Coal mining**	E4	15	4	.5	14.0	.3	.7	9.5	49.3	29.4	74.1	4.6
122	Bituminous coal and lignite mining	E4	15	4	.5	14.0	.3	.7	9.5	49.3	29.4	74.1	4.6
	Clearfield County	E3	67	18	1.7	36.5	1.5	3.0	32.9	110.3	106.3	202.4	14.2
12	**Coal mining**	E3	66	18	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
122	Bituminous coal and lignite mining	E3	66	18	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cumberland County	E4	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Delaware County	-	6	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	**Nonmetallic minerals, except fuels**	-	5	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone, including riprap	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Erie County	E3	15	2	.1	2.8	.1	.2	1.7	4.4	4.9	8.8	.5
14	**Nonmetallic minerals, except fuels**	E3	14	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fayette County	E3	35	6	.4	10.5	.3	.7	8.5	29.8	37.7	84.9	2.8
12	**Coal mining**	E3	30	3	.3	8.7	.2	.5	7.0	26.5	34.5	58.9	2.2
122	Bituminous coal and lignite mining	E3	30	3	.3	8.7	.2	.5	7.0	26.5	34.5	58.9	2.2
	Fulton County	E1	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	**Nonmetallic minerals, except fuels**	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone, including riprap	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Greene County	-	24	12	2.5	100.0	2.0	4.1	79.7	390.7	180.2	620.0	30.8
12	**Coal mining**	-	22	11	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
122	Bituminous coal and lignite mining	-	22	11	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Huntingdon County	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	**Nonmetallic minerals, except fuels**	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Indiana County	-	59	25	3.9	125.3	3.1	5.8	99.7	257.5	212.9	451.6	18.8
12	**Coal mining**	-	59	25	3.9	125.3	3.1	5.8	99.7	257.5	212.9	451.6	18.8
122	Bituminous coal and lignite mining	-	59	25	3.9	125.3	3.1	5.8	99.7	257.5	212.9	451.6	18.8
	Jefferson County	E1	36	7	.5	11.7	.4	1.0	9.9	49.2	(D)	89.4	(D)
12	**Coal mining**	E1	35	7	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
122	Bituminous coal and lignite mining	E1	35	7	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lackawanna County	E5	17	3	.3	9.3	.1	.1	1.8	4.9	3.1	8.8	.8
14	**Nonmetallic minerals, except fuels**	E4	9	3	.3	8.9	.1	.1	1.2	2.9	2.4	4.8	.5
147	Chemical and fertilizer mineral mining	-	2	2	AA	(D)	-	-	-	-	-	-	-
	Lancaster County	-	15	9	.5	13.9	.3	.6	6.0	28.2	17.9	38.8	7.2
14	**Nonmetallic minerals, except fuels**	-	14	8	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone, including riprap	-	11	8	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lawrence County	E3	14	1	.1	3.0	.1	.3	2.4	8.8	5.7	13.7	.7
	Lehigh County	-	7	3	.1	2.0	.1	.2	1.4	7.9	(D)	10.4	(D)
14	**Nonmetallic minerals, except fuels**	-	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Luzerne County	E1	23	8	.8	12.0	.5	.9	9.7	36.6	19.7	51.8	3.4
12	**Coal mining**	E1	19	8	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
123	Anthracite mining	E1	19	8	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lycoming County	-	9	3	.1	2.8	.1	.2	2.1	9.9	(D)	12.8	(D)
	Mercer County	E1	10	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	**Coal mining**	E1	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
122	Bituminous coal and lignite mining	E1	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1987—Con.

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

SIC code	Geographic area and industry group	E[1]	Establishments during year: Total (number)	Establishments during year: With 20 employees or more (number)	All employees: Number[2] (1,000)	All employees: Payroll (million dollars)	Production, development, and exploration workers: Number (1,000)	Production, development, and exploration workers: Hours (millions)	Production, development, and exploration workers: Wages (million dollars)	Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Pennsylvania—Con.												
	Montgomery County	-	13	6	.4	11.9	.2	.8	7.2	34.5	9.6	41.0	3.1
14	**Nonmetallic minerals, except fuels**	-	13	6	.4	11.9	.2	.8	7.2	34.5	9.6	41.0	3.1
142	Crushed and broken stone, including riprap	-	7	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Northampton County	-	7	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	**Nonmetallic minerals, except fuels**	-	6	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone, including riprap	-	4	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Northumberland County	E1	20	1	.2	2.7	.1	.2	2.3	6.0	7.9	12.6	1.3
12	**Coal mining**	E1	13	1	.1	2.2	.1	.2	1.9	4.0	(D)	10.1	(D)
123	Anthracite mining	E1	13	1	.1	2.2	.1	.2	1.9	4.0	(D)	10.1	(D)
	Philadelphia County	E4	8	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Schuylkill County	E1	69	17	1.3	26.8	1.0	1.8	20.4	86.8	81.9	140.8	7.7
12	**Coal mining**	E1	63	15	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
123	Anthracite mining	E1	63	15	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Somerset County	E3	59	13	.9	23.5	.8	1.6	21.1	74.3	58.9	121.5	9.6
12	**Coal mining**	E3	55	11	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
122	Bituminous coal and lignite mining	E3	55	11	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Washington County	E1	34	13	2.4	97.8	1.9	4.1	78.2	170.1	78.2	233.0	15.3
12	**Coal mining**	E1	31	13	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
122	Bituminous coal and lignite mining	E1	31	13	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Westmoreland County	E1	34	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	**Coal mining**	-	27	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
122	Bituminous coal and lignite mining	-	27	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	**Nonmetallic minerals, except fuels**	E7	7	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	York County	E2	8	3	.2	5.8	.2	.3	4.0	14.5	10.0	22.5	1.9
14	**Nonmetallic minerals, except fuels**	E2	8	3	.2	5.8	.2	.3	4.0	14.5	10.0	22.5	1.9
142	Crushed and broken stone, including riprap	E2	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

[1]Payroll and sales data for some small single unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

[2]Some statistics for counties or industry groups are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups with 100 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987

[Data for the crude prtroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Geographic area and employment-size class[1]	All mineral industries	Metal mining (SIC 10)	Coal mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)
Pennsylvania	1 382	14	646	420	302
0 to 4 employees	549	7	216	253	73
5 to 9 employees	286	4	152	70	62
10 to 19 employees	231	2	96	48	83
20 to 49 employees	167	-	81	26	60
50 to 99 employees	77	-	47	12	18
100 to 249 employees	44	1	27	11	5
250 to 499 employees	21	-	21	-	-
500 to 999 employees	5	-	4	-	1
Adams	3	-	-	-	3
0 to 19 employees	2	-	-	-	2
20 to 99 employees	1	-	-	-	1
Pennsylvania—Con.					
Allegheny	42	2	27	-	13
0 to 19 employees	32	2	21	-	9
20 to 99 employees	5	-	2	-	3
100 to 249 employees	3	-	3	-	-
250 employees or more	2	-	1	-	1
Armstrong	48	1	34	-	13
0 to 19 employees	36	1	23	-	12
20 to 99 employees	7	-	6	-	1
100 to 249 employees	3	-	3	-	-
250 employees or more	2	-	2	-	-

See footnotes at end of table

Table 6. Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987—Con.

[Data for the crude petroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Geographic area and employment-size class[1]	All mineral industries	Metal mining (SIC 10)	Coal mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)
Pennsylvania—Con.					
Beaver	5	-	2	-	3
0 to 19 employees	4	-	2	-	2
20 to 99 employees	1	-	-	-	1
Bedford	2	-	-	-	2
20 to 99 employees	2	-	-	-	2
Berks	13	-	-	-	13
0 to 19 employees	8	-	-	-	8
20 to 99 employees	5	-	-	-	5
Blair	5	-	-	-	5
0 to 19 employees	3	-	-	-	3
20 to 99 employees	1	-	-	-	1
100 to 249 employees	1	-	-	-	1
Bradford	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Bucks	19	-	1	-	18
0 to 19 employees	13	-	1	-	12
20 to 99 employees	6	-	-	-	6
Butler	20	-	12	-	8
0 to 19 employees	12	-	8	-	4
20 to 99 employees	7	-	3	-	4
100 to 249 employees	1	-	1	-	-
Cambria	24	-	24	-	-
0 to 19 employees	15	-	15	-	-
20 to 99 employees	4	-	4	-	-
100 to 249 employees	3	-	3	-	-
250 employees or more	2	-	2	-	-
Carbon	3	1	1	-	1
0 to 19 employees	1	-	-	-	1
20 to 99 employees	1	-	1	-	-
100 to 249 employees	1	1	-	-	-
Centre	21	-	16	-	5
0 to 19 employees	13	-	8	-	5
20 to 99 employees	6	-	6	-	-
100 to 249 employees	1	-	1	-	-
250 employees or more	1	-	1	-	-
Chester	6	-	2	-	4
0 to 19 employees	2	-	1	-	1
20 to 99 employees	4	-	1	-	3
Clarion	15	-	15	-	-
0 to 19 employees	11	-	11	-	-
20 to 99 employees	3	-	3	-	-
100 to 249 employees	1	-	1	-	-
Clearfield	67	-	66	-	1
0 to 19 employees	49	-	48	-	1
20 to 99 employees	15	-	15	-	-
100 to 249 employees	2	-	2	-	-
250 employees or more	1	-	1	-	-
Clinton	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Columbia	2	-	-	-	2
0 to 19 employees	2	-	-	-	2
Crawford	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Cumberland	6	-	1	-	5
0 to 19 employees	4	-	-	-	4
20 to 99 employees	2	-	1	-	1
Dauphin	4	-	2	-	2
0 to 19 employees	3	-	2	-	1
20 to 99 employees	1	-	-	-	1
Delaware	6	-	-	1	5
0 to 19 employees	4	-	-	1	3
20 to 99 employees	2	-	-	-	2
Elk	4	-	4	-	-
0 to 19 employees	3	-	3	-	-
20 to 99 employees	1	-	1	-	-
Erie	15	-	1	-	14
0 to 19 employees	13	-	1	-	12
20 to 99 employees	2	-	-	-	2
Fayette	35	1	30	-	4
0 to 19 employees	29	1	27	-	1
20 to 99 employees	6	-	3	-	3
Forest	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Franklin	6	-	1	-	5
0 to 19 employees	5	-	1	-	4
20 to 99 employees	1	-	-	-	1
Fulton	4	-	1	-	3
0 to 19 employees	3	-	1	-	2
100 to 249 employees	1	-	-	-	1
Greene	24	-	22	1	1
0 to 19 employees	12	-	11	1	-
20 to 99 employees	5	-	4	-	1
100 to 249 employees	1	-	1	-	-
250 employees or more	6	-	6	-	-
Huntingdon	3	-	-	-	3
0 to 19 employees	2	-	-	-	2
100 to 249 employees	1	-	-	-	1
Indiana	59	-	59	-	-
0 to 19 employees	34	-	34	-	-
20 to 99 employees	11	-	11	-	-
100 to 249 employees	8	-	8	-	-
250 employees or more	6	-	6	-	-
Jefferson	36	-	35	-	1
0 to 19 employees	29	-	28	-	1
20 to 99 employees	7	-	7	-	-
Juniata	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Lackawanna	17	-	8	-	9
0 to 19 employees	14	-	8	-	6
20 to 99 employees	2	-	-	-	2
100 to 249 employees	1	-	-	-	1
Lancaster	15	-	1	-	14
0 to 19 employees	6	-	-	-	6
20 to 99 employees	9	-	1	-	8
Lawrence	14	-	2	-	12
0 to 19 employees	13	-	1	-	12
20 to 99 employees	1	-	1	-	-
Lebanon	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Lehigh	7	1	1	-	5
0 to 19 employees	4	1	1	-	2
20 to 99 employees	3	-	-	-	3
Luzerne	23	-	19	-	4
0 to 19 employees	15	-	11	-	4
20 to 99 employees	7	-	7	-	-
100 to 249 employees	1	-	1	-	-
Lycoming	8	-	2	-	6
0 to 19 employees	5	-	1	-	4
20 to 99 employees	3	-	1	-	2
McKean	3	-	-	1	2
0 to 19 employees	3	-	-	1	2
Mercer	10	-	4	-	6
0 to 19 employees	7	-	2	-	5
20 to 99 employees	2	-	1	-	1
250 employees or more	1	-	1	-	-
Monroe	9	-	-	-	9
0 to 19 employees	8	-	-	-	8
20 to 99 employees	1	-	-	-	1

See footnotes at end of table.

Table 6. Number of Mineral Establishments in Major Groups by Employment-Size Class for Counties: 1987—Con.

[Data for the crude prtroleum and natural gas and mining services industries were not collected by county in 1987 and are not included with the data shown by county. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Geographic area and employment-size class[1]	All mineral industries	Metal mining (SIC 10)	Coal mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)
Pennsylvania—Con.					
Montgomery	13	-	-	-	13
0 to 19 employees	7	-	-	-	7
20 to 99 employees	5	-	-	-	5
100 to 249 employees	1	-	-	-	1
Montour	2	-	1	-	1
0 to 19 employees	2	-	1	-	1
Northampton	7	1	-	-	6
0 to 19 employees	3	1	-	-	2
20 to 99 employees	4	-	-	-	4
Northumberland	20	-	13	-	7
0 to 19 employees	19	-	12	-	7
20 to 99 employees	1	-	1	-	-
Perry	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Philadelphia	6	1	1	-	4
0 to 19 employees	5	1	-	-	4
20 to 99 employees	1	-	1	-	-
Pike	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Schuylkill	68	-	63	-	5
0 to 19 employees	51	-	48	-	3
20 to 99 employees	16	-	14	-	2
250 employees or more	1	-	1	-	-
Snyder	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Somerset	59	-	55	-	4
0 to 19 employees	46	-	44	-	2
20 to 99 employees	12	-	10	-	2
100 to 249 employees	1	-	1	-	-
Pennsylvania—Con.					
Susquehanna	10	-	-	-	10
0 to 19 employees	9	-	-	-	9
20 to 99 employees	1	-	-	-	1
Tioga	3	-	2	-	1
0 to 19 employees	2	-	1	-	1
20 to 99 employees	1	-	1	-	-
Union	1	-	-	-	1
0 to 19 employees	1	-	-	-	1
Venango	5	-	2	-	3
0 to 19 employees	4	-	1	-	3
20 to 99 employees	1	-	1	-	-
Warren	4	-	-	-	4
0 to 19 employees	4	-	-	-	4
Washington	34	1	31	-	2
0 to 19 employees	21	1	18	-	2
20 to 99 employees	8	-	8	-	-
100 to 249 employees	1	-	1	-	-
250 employees or more	4	-	4	-	-
Wayne	5	-	-	-	5
0 to 19 employees	5	-	-	-	5
Westmoreland	34	-	27	-	7
0 to 19 employees	30	-	25	-	5
20 to 99 employees	4	-	2	-	2
Wyoming	3	-	-	-	3
0 to 19 employees	3	-	-	-	3
York	8	-	-	-	8
0 to 19 employees	5	-	-	-	5
20 to 99 employees	3	-	-	-	3
Undistributed	467	5	58	417	7
0 to 19 employees	422	5	46	368	3
20 to 99 employees	53	-	11	38	4
100 to 249 employees	12	-	1	11	-

[1]Data for crude petroleum and natural gas and mining services industries are excluded from the individual counties and shown at the end of the table as "undistributed."

APPENDIX A.
Explanation of Terms

Employment and related items—The report forms requested separate information on production, development, and exploration workers for a specific payroll period within each quarter of the year and on other employees as of the payroll period which included the 12th of March.

All employees—This item includes all full-time and part-time employees on the payrolls of mining establishments during any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This item includes employees (up through the working-supervisor level) engaged in manual work (using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards). Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and guard services, auxiliary production for use at establishments (such as power plant), record keeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and supervisors who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and persons engaged by them and paid out of the total amount received by these miners. In addition, other employees at the establishment but not on its payroll are included if paid directly through its own employees, such as superintendents and supervisors. The payments received by these types of employees are included as part of the establishments payroll. Employees above the working-supervisor level are excluded from this category.

All other employees—This item covers nonproduction employees of the establishment including those engaged in the following activities: supervision above the working-supervisor level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Separately operated auxiliary establishments employees—This item includes employment at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment during the payroll period which included March 12. Establishments are classified on the basis of the industry or principal industry served. Employees at an office located at or near the mining establishment are usually included in the mine report.

All employees, average for year—The 1987 census report form requested employment figures for production, development, and exploration workers for four selected pay periods (mid-March, May, August, and November). For all other employees, only a mid-March figure was requested. The annual average is an average of the four monthly figures for production, development, and exploration workers plus the March figure for all other employees. This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods closely approximates, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods.

Payroll—This item includes the gross earnings of all employees on the payroll of mining establishments paid in the calendar year 1987. Respondents were told that in reporting they could follow the definition of payroll used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, payments received on a ton, car, or yard basis, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group

insurance, union dues, and savings bonds. The total includes salaries of officers of corporations; it excludes payments to the proprietor or partners of unincorporated concerns, and payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

As in the case of employment and establishment figures, the annual payrolls of separate auxiliary establishments of multiestablishment companies are included in the totals for individual industries and for States.

Production-, development-, and exploration-worker hours—This item represents all hours that production, development, and exploration workers worked, both on active days during which there was production or development work and on inactive days when only security guards, inspectors, repair persons, and other maintenance persons were on duty. It includes all hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Included are actual overtime hours, not straight time equivalent hours. Hours of working proprietors or partners are excluded.

Supplemental labor costs—This item represents employer's cost for fringe benefits not included in payrolls.

Legally required expenditures, including Social Security contributions—This cost includes employer contributions for all programs required under Federal and State legislation, such as Federal Old Age and Survivors' Insurance, unemployment compensation, and worker's compensation. Also included are legally required State temporary disability payments.

Payments for voluntary programs—Included in this cost are payments resulting from union negotiated contracts and all employer payments of insurance premiums on hospital and medical plans, life insurance premiums, and premiums on supplementary accident and sickness insurance. For programs supported by joint employer-employee contributions, only the employer payments are included. Also included are payments or allocations on all pension plans regardless of methods of administration, supplemental unemployment compensation plans, welfare plans, stock purchase plans in which the employer payment is not subject to withholding tax, and deferred profit sharing plans.

Value added by mining—This measure of mining activity is derived by subtracting the cost of supplies, minerals received for preparation, purchased machinery installed, purchased fuel, purchased electricity, and contract work from the sum of the value of shipments (mining products plus receipts for services rendered) and total capital expenditures. This statistic avoids the duplication in value of shipments and receipts which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

Cost of supplies used, purchased machinery installed, etc.—Besides supplies used and purchased machinery installed, this cost includes fuels and electric energy used and contract work done by others for each establishment. It includes charges to both the current and capital accounts. It also includes the cost of items used during 1987 whether they were purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy, both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year. Freight charges and other direct charges incurred by the establishment in acquiring the item are included. Companies whose records did not show actual amounts used were asked to approximate use by adding purchases (or receipts) during the year to opening inventory and subtracting closing inventory. Separate figures were requested for (1) selected supplies used, minerals received for preparation, and purchased machinery installed; (2) electric energy purchased; (3) purchased fuels used for heat, power, or the generation of electricity; (4) contract work done by others; and (5) products bought and resold in the same condition. Supplies and equipment used in mine development, plant expansion, and capitalized repairs, which are chargeable to fixed assets accounts, are included in this item, as are supplies furnished without charge to contractors for use at the mining operation and supplies sold to employees for use at the establishment. Excluded are such costs as advertising, insurance, telephone, and research and consulting services of other establishments or such overhead costs as depreciation charges, rent, interest, and royalties.

Value of shipments and receipts— The amounts shown as value of shipments and receipts for each industry and State are the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges. Shipments includes all products physically shipped from the establishment during 1987, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1987. Prepared material or concentrates includes preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the

estimated value, not merely the cost of producing the items. Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

For all establishments classified in an industry, value of shipments and receipts includes (1) the value of all primary products of the industry, (2) the value of secondary products which are primary to other industries, (3) the receipts for contract work done for others, except custom milling, and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products.

Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale.

Capital expenditures—This item covers expenditures made during the year for development and exploration of mineral properties, for new construction, and for purchased machinery chargeable to fixed assets accounts of the mineral establishment. They are the type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1987 were determined as "additions completed during the year plus construction in progress at the end of the year minus construction in progress at the beginning of the year." Reported capital expenditures includes work done on contract, as well as by the mine forces. Expenditures for machinery and equipment includes those made for replacement purposes, as well as those for additions to capacity. Excluded from these expenditures were costs of maintenance and repairs charged as current operating expense and expenditures for land and mineral rights.

Whenever applicable, separate figures were provided for expenditures for development and exploration of mineral property, construction of preparation plants and other construction, new machinery and equipment, used plant, and used equipment acquired from others.

Rental payments—This item consists of rental payments made to other companies for use of such depreciable assets as buildings, other structures, machinery, and equipment. It does not include payments made to the parent company or another subsidiary of the parent company for the use of buildings and equipment owned by the parent company or its subsidiary. The value of such company-owned assets is included in the gross value of depreciable assets.

For 1987, a clarification was made to the instructions for rental payments to indicate that the equipment should be reported according to the type of lease negotiated with the lessor. If the lease qualified as an "operating lease" the periodic payments made to the producer or the lessor should be reported in the rental section. However, if the leasing arrangement met the criteria set down by the Financial Accounting Standards Board for a "capital lease", the original cost or market value of the equipment or building was to be reported as a value of fixed assets and not as rental payments.

Current account expenditures—This item includes all expenses for mineral properties, exploration, and development charged to current accounts. This includes all supplies, machinery, equipment, parts, fuels, power, etc., used for development or exploration and charged to current operating expenses. Also included are royalty payments, acquisition costs for mineral land and rights which were not capitalized, and the cost of maintenance and repairs associated with exploration or development activity and charged to current accounts.

Inventories—This item includes inventories of mined or quarried products and supplies, parts, fuels, etc., at the beginning and end of the year. Included as mined or quarried products are stockpiles of products ready for shipment and stocks of raw products awaiting treatment or beneficiation. Beginning in the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method. The inventory figures for 1987 and 1982, therefore, will not be comparable to prior census data because of the change in reporting instructions.

APPENDIX B.
Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont
Atlantic Offshore

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia

SOUTH ATLANTIC STATES—Con.

Maryland
North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas
Northern Gulf of Mexico Offshore

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington
Pacific Offshore

PUBLICATION PROGRAM

1987 CENSUS OF MINERAL INDUSTRIES

Publications of the 1987 Census of Mineral Industries, containing data on establishments primarily engaged in the extraction of minerals, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.

Preliminary Reports

Industry series—12 reports (MIC87-I-10A(P) to -14E(P))

Preliminary data from the 1987 census are issued in 12 separate reports covering 31 mineral industries. Preliminary summary data for the U.S. and States are released in one report.

Final Reports

Industry series—12 reports (MIC87-I-10A to -14E)

Each of the 12 reports provides information for an industry or a group of related industries (e.g., clay, ceramic, and refractory minerals). Final figures for the United States are shown for each of 31 mineral industries on quantity and value of products shipped and supplies used; inventories; quantity and cost of fuels and electric energy purchased, and the quantities of fuels produced and consumed; capital expenditures; assets; rents; employment; depreciation, amortization and depletion; payrolls; hours worked; cost of purchased machinery; value added by mining; mineral development and exploration costs; number of establishments; and number of companies. Comparative statistics for earlier years are included. Industry statistics are shown by State, type of operation, and size of establishment.

Geographic area series—9 reports (MIC87-A-1 to -9)

A separate report for each of the nine geographic divisions presents statistics for individual States for two- and three-digit industry groups by type of operation and by county. Also, data are shown for value of shipments, value added by mining, employment, payroll, hours worked, capital expenditures, cost of supplies, etc., purchased machinery installed, and number of mining establishments, with comparative 1982 data on employment and value added by mining.

Subject series—2 reports (MIC87-S-1 to -2)

One of these reports is a general National-level summary; the other report contains detailed statistics on fuels and electric energy consumed by mineral industries.

Reference series—1 report (MC87-R-1)

The Numerical List of Manufactured and Mineral Products includes a description of the principal products and services published in the 1987 Censuses of Manufactures and Mineral Industries.

MICROFICHE

Every final published report in the 1987 Census of Mineral Industries will be available on microfiche.

PUBLIC-USE COMPUTER TAPES AND COMPACT DISCS

Data from the final industry series, and geographic area series will be available on public-use computer tapes and compact discs-read only memory (CD-ROM). These tapes will provide the same information found in the final reports. Computerized data products are available for users who wish to summarize, rearrange, or process large amounts of data. These products, with corresponding technical documentation, are sold by Data User Services Division, Customer Services (Tapes), Bureau of the Census, Washington, DC 20233.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, manufactures, transportation, enterprise statistics, minority-owned businesses, and women-owned businesses also are available from the 1987 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. Separate announcements describing these reports are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.